

an ordinary artisan, the many example solid state oxidants disclosed in the provisional application, and explicit declarations of the broader genus of solid state oxidants and the species of nitrates.

In fact, the provisional application specifically discloses the genus of solid state oxidants. Specifically, the provisional describes preparing an "oxidizing agent" as a "solid material" by the addition of solutions to porous Si. This is in the first paragraph of page 2 of the provisional application. The examiner, in limiting the scope of the provisional application to gadolinium nitrate fails to consider the skill level of an ordinary artisan, and fails to recognize the explicit discussion of the broader genus in the provisional application.

The paragraph on page 2 of the provisional application is a sufficient teaching of introducing a solid state oxidant into a porous silicon matrix for one of ordinary skill. Additionally, the provisional application discusses many more species than treatment of the porous Si matrix with gadolinium nitrate.

Page 1 of the provisional application states that "nitrate-treated, dried samples exploded when scratched with a diamond scribe or when subjected to a small electric spark."

Page 3 of the provisional application explicitly states "a simple method is presented for generating a solid-state explosive using porous silicon and a *metal nitrate solution*." (emphasis added). Throughout the first three pages of the provisional application, "explosive nitrate-treated porous silicon" is mentioned, with page 3 summarizing that it "is as promising material for applications such as qualitative elemental analysis in microarrays or as

propulsion sources.” Page 2 of the provisional application mentions that “addition of the *oxidizing agent as a dilute nitrate salt solution* (instead of the liquid agents used previously) *allows the preparation of a solid material that can be detonated* in a more controlled fashion.” (emphasis added) FIG. 3 of the provisional application discloses spectra acquired from explosions of porous Si/nitrate samples treated with various alkali metal salts. FIG. 4 shows examples of explosions from additional silicon/nitrate samples.

There is no basis to conclude that only gadolinium nitrate finds priority in the provisional. The effective filing date for all of the claims should accordingly be December 10, 2002, the filing date of the provisional application.

Also, the examiner clearly gives more credit to the skill level of ordinary artisans in the §103 rejection than in conducting the priority analysis. There is no double standard as to the skill of an artisan, though, as the same level of skill and knowledge is presumed for an artisan reading the present application as an artisan who is reading Simpson and Aubert. According to the examiner, it is obvious to modify Simpson to use potassium or ammonium nitrate instead of PETN “as disclosed by Aubert depending upon oxygen balance of the reaction and sensitivity needed for the explosion.” Similarly, it is within the skill of an artisan to recognize the genus of solid state oxidants in the provisional application based upon the many examples provided in the provisional application using the same knowledge and what is known in the art such as Aubert.

Claims 1, 2, 8 and 9 stand rejected under §102 over Simpson, US 6,666,935.

The rejection is respectfully traversed.

Simpson does not qualify as prior art. Simpson's effective §102(e) filing date is February 6, 2003, the date of the U.S. application. The effective date of the present application is December 12, 2002. This rejection is separately traversed with respect to each of claims 1, 2, 8 and 9.

Claim 11 is rejected under §103 over Simpson. Simpson does not qualify as prior art, so the rejection is traversed.

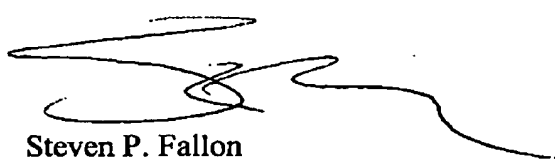
Claim 3 is rejected under §103 over Simpson and Aubert. Simpson does not qualify as prior art, so the rejection is traversed.

For the foregoing reasons, Applicant submits that this Application is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite the prosecution.

Respectfully submitted,

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